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APPLICANT: TAISEI CORP;

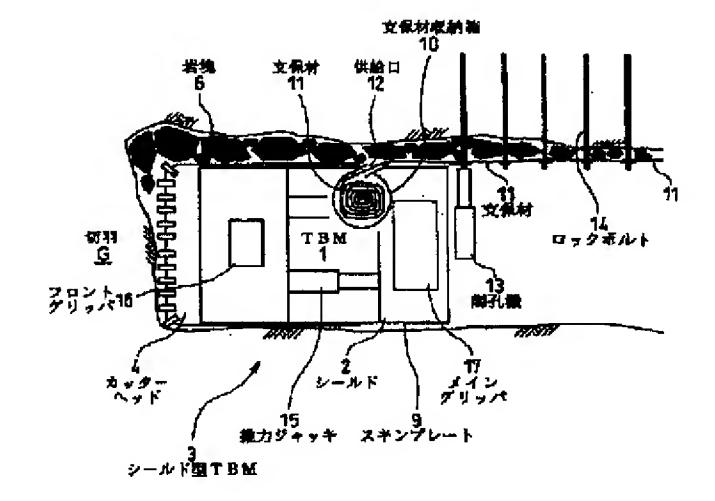
INVENTOR: AOKI TOMOYUKI;

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TITLE: TUNNEL-BORING CONSTRUCTION

METHOD BY CONTINUOUSLY

SUPPLIED SUPPORT



ABSTRACT :

PROBLEM TO BE SOLVED: To efficiently install a support member in parallel with an boring work, by automatically letting out the support member contained in a boring machine to cover the bed rock of the rear end of the machine and boring the bed rock by a boring machine and fixing it with bolts.

SOLUTION: A containing case 10 for a support member is provided in a boring machine in which a TBM 1 and a shield 2 that the whole TBM 1 is covered with a skin plate 9 are integrally formed, and the support member is rolled up or folded to house in the machine. Supply openings 12 of the support member 11 are provided at the top of the skin plate 9 and both side walls and a drilling machine 13 is provided at the rear end of the TBM 1. When a thrusting jack 7 is contracted to start to pull the rear part of the TBM 1 toward a cutting face, the support 11 is automatically let out from the supply openings 12 of the top and both side walls to set it on the bed rock of the rear end of TBM 1 and cover the upper half section of the tunnel. And the bed rock is drilled by a boring machine 13 and rock bolts 14 are driven to fix it. Since the support member 11 is installed in parallel with the boring work, the support member can be efficiently and safely installed.

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